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**PRELIMINARY FOUNDATION INVESTIGATION
AND DESIGN REPORT
PROPOSED CHRISTINA STREET UNDERPASS
REPLACEMENT
HIGHWAY 402, GWP 3038-03-00
AGREEMENT NUMBER 3005-A-000394**

Submitted to:

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LIST OF ABBREVIATIONS

LIST OF SYMBOLS

RECORDS OF BOREHOLES

FIGURE 1 - Site Location Plan

DRAWING 1 - Borehole Location Plan and Soil Strata

APPENDIX A - Laboratory Test Results

APPENDIX B - Site Photographs

PART A

**PRELIMINARY FOUNDATION INVESTIGATION REPORT
PROPOSED CHRISTINA ST. UNDERPASS REPLACEMENT
HIGHWAY 402, GWP 3038-03-00
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1.0 INTRODUCTION

Golder Associates Ltd. (Golder) has been retained by URS Canada Inc. (URS) on behalf of the Ministry of Transportation, Ontario (MTO) to carry out preliminary foundation investigations at various sites along Highway 402 in conjunction with GWP 3038-03-00 which extends from the Bluewater Bridge Authority Plaza east for 16 kilometres to Lambton Road 26 (Mandaumin Road) in Sarnia, Ontario. This report addresses the replacement of the Christina Street underpass structure. The location of the site is shown on the site location plan, Figure 1.

The purpose of the foundation investigation is to determine the subsurface conditions at the site of the proposed new bridge by drilling two boreholes at the site. The terms of reference for the scope of work are outlined in Golder's Total Project Management (TPM) proposal P31-3109, dated December 2003. The work was carried out in accordance with our Quality Control of TPM Services Plan, Agreement No. 3005-A-000394, dated May 2004.

URS provided Golder with general arrangement drawings for the existing Highway 402 underpass structure and the proposed replacement structure. The original structure drawing was prepared by the Department of Highways, Ontario and was dated August 25, 1950.